PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-321777
(43)Date of publication of application : 20.11.2001

(51)Int.Cl. C02F 1/50
C02F 1/28
C02F 1/30
C02F 1/64

(21)Application number : 2000-179101
(22)Date of filing : 12.05.2000

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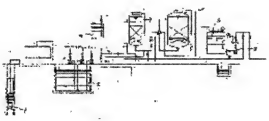
(54) METHOD AND APPARATUS FOR TREATING WELL WATER

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a method and apparatus for treating well water, sterilizing various bacteria such as microorganisms or the like in well water and removing organic matter such as an aquatic plant or the like becoming a nutrition source of various bacteria to convert well water to treated water usable as washing water for electronic parts or the like.
SOLUTION: Ground water is pumped up to be stored in a raw water tank 2 and sent to a chlorine sterilization tank 3 to be sterilized by chlorine and the sterilized water is sent to a ceramic tank 4, in which far infrared emitting ceramic particles are charged in a state supported on a net, to be passed through the gaps between the ceramic particles while impurities in the sterilized water are separated by far infrared treatment and clusters of water are reduced and the treated water is sent to a rapid iron removing tank 5 packed with sand to be passed through the sand bed while impurities are filtered off and an iron component is adsorbed and the filtered treated water from which iron is removed is sent to an activated carbon treatment tank 6 and the treated water, from which impurities not removed in the rapid iron removing tank 5 are adsorbed by activated carbon, is supplied to a factory.



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2.**** shows the word which can not be translated.
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CLAIMS

[Claim(s)]
[Claim 1]Send pumped-up groundwater to the chlorine sterilization tub 3, and carry out chlorine sterilization processing there and water by which germicidal treatment was carried out is sent to the ceramic tower 4, A well water disposal method which it has loaded into the ceramic tower 4 after netting a ceramic particle of a far infrared radiator, an impurity of water is separated by far-infrared processing when water by which germicidal treatment was carried out passes through between ceramic particles, and makes a cluster of water small.
[Claim 2]Sent pumped-up groundwater to the ceramic tower 4, and into the ceramic tower 4, after netting a ceramic particle of a far infrared radiator, it has loaded, As for water, an impurity is separated by far-infrared processing when passing through between the ceramic particle, A well water disposal method as a cluster of water was made small, and the water was sent to the rapid deferrization tub 5, and has been filled up with sand in the rapid deferrization tub 5, filters an impurity when water in which an impurity was separated passes Sama, and comes to adsorb iron.
[Claim 3]Pump up groundwater, store in the raw water tub 2, and the water is sent to the chlorine sterilization tub 3, Then, carry out chlorine sterilization processing and water by which germicidal treatment was carried out is sent to the ceramic tower 4, Into the ceramic tower 4, after netting a ceramic particle of a far infrared radiator, it has loaded, An impurity is separated by far-infrared processing when water by which germicidal treatment was carried out passes through between ceramic particles, Made a cluster of water small, the water was sent to the rapid deferrization tub 5, and it is filled up with sand in the rapid deferrization tub 5, A well water disposal method which filters an impurity when water in which an impurity was separated passes Sama, adsorbs iron, sends there filtration and treated water by which deferrization was carried out to the activated-carbon-treatment tank 6, adsorbs an impurity which was not removed by the rapid deferrization tub 5 there with activated carbon, and is made to come to supply water from there to a factory.
[Claim 4]The raw water tub 2 which pumps up and stores groundwater, and the chlorine sterilization tub 3 which is connected for piping from there and carries out chlorine sterilization processing of the water, The ceramic tower 4 with which it loaded after netting a ceramic particle of a far infrared radiator in order to be connected for piping from there and to carry out far-infrared processing of the water by which germicidal treatment was carried out, The rapid deferrization tub 5 which is connected for piping from there, receives treated water from which an impurity was separated by far-infrared processing, fills up an inside with sand, filters water which passes through that by it, and adsorbs iron, A well water processing unit which is connected for piping from there, becomes in the activated-carbon-treatment tank 6 which filled up an inside with activated carbon in order to adsorb an impurity which remains, and is made to come to supply water from there to a factory.

[Translation done.]

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PRIOR ART

[Description of the Prior Art]although polish of the parts in an electronic-parts factory, etc. are made from the former desirable [the treated water for surface treatments / pure water], pure water comes to hand — hard — ** — it is expensive. So, use of groundwater can be considered as water which is easy to come to hand. However, saprophytic bacteria are contained in groundwater, therefore an alga occurs in a water tank, and if it remains as it is, it cannot be used as treated water. Since slime arises with saprophytic bacteria, it is necessary to clean a water tank, piping, related machinery, etc. like every day, and the time and effort and expense have bounded the manufacturing cost greatly.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application]Especially this invention relates to the disposal method and device of well water which are used as surface treatment water, such as polish of electronic parts etc., about a well water disposal method and a device.
[0002]
[Description of the Prior Art]although polish of the parts in an electronic-parts factory, etc. are made from the former desirable [the treated water for surface treatments / pure water], pure water comes to hand — hard — ** — it is expensive. So, use of groundwater can be considered as water which is easy to come to hand. However, saprophytic bacteria are contained in groundwater, therefore an alga occurs in a water tank, and if it remains as it is, it cannot be used as treated water. Since slime arises with saprophytic bacteria, it is necessary to clean a water tank, piping, related machinery, etc. like every day, and the time and effort and expense have bounded the manufacturing cost greatly.
[0003]
[Problem(s) to be Solved by the Invention]Then, saprophytic bacteria, such as a microorganism, and algae are contained in well water, increase using an underwater nutrient, secrete substance adhering, such as polysaccharide, an underwater floating suspended solid is made to adherence-ize, the dust in the air, etc. are mixed with this, and these build the adhesive quality of slime. Since it is not not only desirable as wash water, such as electronic parts, but adheres to a water tank, piping, related machinery, etc. since this floats underwater, or it deposits, the time and effort and expense of the cleaning will start. Therefore, while sterilizing saprophytic bacteria, such as a microorganism in well water, organic matters, such as a hydrophyte used as those nutrients, are removed, and let it be a technical problem of this invention to make it the treated water which can be used as wash water, such as electronic parts. Let it be the 1st technical problem of this invention to make it the treated water which specifically carried out chlorine sterilization processing of the groundwater containing saprophytic bacteria, such as a microorganism, carried out far-infrared processing of the germicidal treatment water, and separated the impurity. When many iron is contained in groundwater, far-infrared processing of the groundwater is carried out, and an impurity is separated, and let it be the 2nd technical problem of this invention to make it the treated water which carried out deferrization filtration in the rapid deferrization layer. Let it be the 3rd technical problem of this invention to make it the treated water which carries out chlorine sterilization processing of the groundwater containing saprophytic bacteria, such as a microorganism, carries out far-infrared processing of the germicidal treatment water, separates an impurity, carries out deferrization filtration in a rapid deferrization layer, adsorbs the impurity which remains further, and can be used as wash water, such as electronic parts.
[0004]
[Means for Solving the Problem]This invention pumps up groundwater, and stores it in the raw water tub 2, and the water is sent to the chlorine sterilization tub 3, Then, carry out chlorine sterilization processing and water by which germicidal treatment was carried out is sent to the ceramic tower 4, Into the ceramic tower 4, after netting a ceramic particle of a far infrared radiator, it has loaded, An impurity is separated by far-infrared processing when water by which germicidal treatment was carried out passes through between ceramic particles, Made a cluster of water small, the water was sent to the rapid deferrization tub 5, and it is filled up with sand in the rapid deferrization tub 5, It is a well water disposal method which adsorbs an impurity which

filtered an impurity when water in which an impurity was separated passed Sama, adsorbed iron, sent there filtration and treated water by which deferrization was carried out to the activated-carbon-treatment tank 6, and was not removed by the rapid deferrization tub 5 there with activated carbon, and is made to come to supply water from there to a factory. The raw water tub 2 which this invention pumps up groundwater and stores, and the chlorine sterilization tub 3 which is connected for piping from there and carries out chlorine sterilization processing of the water, The ceramic tower 4 with which it loaded after netting a ceramic particle of a far infrared radiator in order to be connected for piping from there and to carry out far-infrared processing of the water by which germicidal treatment was carried out, The rapid deferrization tub 5 which is connected for piping from there, receives treated water from which an impurity was separated by far-infrared processing, fills up an inside with sand, filters water which passes through that by it, and adsorbs iron, It is a well water processing unit which is connected for piping from there, becomes in the activated-carbon-treatment tank 6 which filled up an inside with activated carbon in order to adsorb an impurity which remains, and is made to come to supply water from there to a factory.

[0005]

[Function]How for this invention to pump up groundwater, carry out chlorine sterilization by (1) chlorine sterilization tub 3, and carry out far-infrared processing of it with the ceramic tower 4, (2) Three kinds of the method of carrying out far-infrared processing with the ceramic tower 4, and carrying out rapid deferrization filtration by the rapid deferrization tub 5 and the method of carrying out chlorine sterilization by (3) chlorine sterilization tubs 3, carrying out far-infrared processing of it with the ceramic tower 4, carrying out rapid deferrization filtration by the rapid deferrization tub 5, and adsorbing a remains impurity further in the activated-carbon-treatment tank 6 can be considered. Piping and a valve perform the change to (1) or (2) from the case of the above (3), and an unnecessary tub is bypassed. Therefore, the method of (3) is explained here. Groundwater is first pumped up with a well pump, it accumulates in the raw water tub 2, the water is sent to the chlorine sterilization tub 3, and germicidal treatment is carried out using the level of chlorine of a grade used for the usual tap water there. An impurity is separated by operation of the far-infrared rays emitted from the ceramic particle of the far infrared radiator in the ceramic tower 4 when the water by which germicidal treatment was carried out is sent to the ceramic tower 4 and it passes through between ceramic particles slowly, When the cluster of water becomes small, the treated water in which the impurity was separated is sent to the rapid deferrization tub 5 and Sama in the rapid deferrization tub 5 is passed, filter the separated impurity and iron is made to adsorb, and further, in the activated-carbon-treatment tank 6, the impurity which was not removed by then is adsorbed and is removed. Water is supplied to treated water from the activated-carbon-treatment tank 6 at a factory. The back wash of an impurity, iron, etc. which attached the back washing device and adsorbed it is periodically carried out to the rapid deferrization tub 5 and the activated-carbon-treatment tank 6, and it is made not to cause blinding. The result of having compared the quality of raw water of the raw water tub 2 with the quality of treated water which came out of the last activated-carbon-treatment tank 6 is as follows, and it turns out that water quality has been improved. Quality of raw water Quality of treated water PH 7.4 PH. 6.0 - 8.0 Fe 2.0 mg/l Fe, <0.3 mg/l Mn 0.1 mg/l Mn<0.1 mg/l Hardness 53 Hardness Ten or less $SiO_2$29 mg/l $KMnO_4$1.5 mg/l Evaporation leftovers 110 mg/l Electric conductivity 60-80 Electric conductivity It hides 10-20, Since the incidence rate of the alga fell to the about 1/20th conventional place, its number of times of cleaning of a water tank and other machinery can also decrease, and the number of times of cleaning performed till then every day can be managed now at once in one month.

[0006]

[Work example 1]Drawing 1 explains the device corresponding to claim 4. The raw water tub 2 which pumps up and stores groundwater, and the chlorine sterilization tub 3 which is connected for piping from there and carries out chlorine sterilization processing of the water, The ceramic tower 4 with which it loaded after netting the ceramic particle of a far infrared radiator in order to be connected for piping from there and to carry out far-infrared processing of the water by which germicidal treatment was carried out, The rapid deferrization tub 5 which it is connected for piping from there, and an impurity is separated by far-infrared processing, receives the treated water in which the cluster of water became small, fills up an inside with sand, filters the impurity of the water which passes through that by it, and adsorbs iron, The activated-carbon-treatment tank 6 from which the impurity which was connected for piping from there and did not remove by

then the treated water by which deferrization filtration was carried out by letting activated carbon pass is removed, It is a well water processing unit which forms the water distribution mouth 7 and the feed water unit pump 8 in that treated water tub 6, and is made to come to supply water from there to a factory, and is a well water disposal method using this device. The chlorine sterilization of the chlorine sterilization tub 3 uses the level of chlorine used for the usual tap water. The ceramic particle sand of the diameter of 4-14micro of a far infrared radiator or a 3-15-mm ceramic particle stone is stuffed into the ceramic tower 4, and it covers with a network downward. When there is much iron, deferrization is carried out to water through the rapid deferrization tub 5, but it is not necessary to necessarily use this rapid deferrization tub 5. The combination of only the chlorine sterilization tub 3 and the ceramic tower 4 and the combination of only the ceramic tower 4 and the rapid deferrization tub 5 are also possible.

[0007]

[Effect]This invention is bypassing the unnecessary tub according to the water quality of processed water in condition, such as the chlorine sterilization tub 3, the ceramic tower 4 and the ceramic tower 4, the rapid deferrization tub 5 and the chlorine sterilization tub 3, the ceramic tower 4 and the rapid deferrization tub 5, and the activated-carbon-treatment tank 6, as mentioned above, and can also make it the combination of a gap. Sterilize saprophytic bacteria by the chlorine sterilization tub 3, and the ceramic tower 4 separates impurities, such as an organic matter, and in the rapid deferrization tub 5 and the activated-carbon-treatment tank 6 Filtration removal of an impurity, Since deferrization is carried out, generating of an alga or slime can be controlled, and it can be made the treated water which can be used without the necessity of cleaning a water tank, piping, related machinery, etc. like every day like before, as wash water, such as electronic parts, and there is an effect which makes a manufacturing cost cheap. Furthermore, saprophytic bacteria, such as a microorganism in well water, are sterilized through this device, and since filtration adsorption treatment of the impurities, such as an organic matter, is carried out, the electric conductivity of treated water can be reduced to 10-20 from 60-80. Hard water can be used as soft water by processing with the device of this invention.

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(19)日本国特許庁（ＪＰ）　(12)公開特許公報（Ａ）　(11)特許出願公開番号
特開2001－321777
（P2001－321777A）
(43)公開日　平成13年11月20日(2001.11.20)

(51)Int.Cl.[7]	識別記号	Ｆ Ｉ		ﾃｰﾏｺｰﾄﾞ(参考)
Ｃ０２Ｆ　1/50	５２０	Ｃ０２Ｆ　1/50	５２０Ｂ	４Ｄ０２４
	ＺＡＢ		ＺＡＢ	４Ｄ０３７
	５１０		５１０Ａ	４Ｄ０３８
	５３１		５３１Ｍ	
	５４０		５４０Ｂ	

審査請求　未請求　請求項の数４　書面　（全４頁）　最終頁に続く

(21)出願番号　特願2000－179101(P2000－179101)

(22)出願日　平成12年５月12日(2000.5.12)

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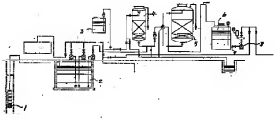
Ｆターム(参考)　4D024 AA01 AB16 BA02 BC01 DB03
4D037 AA01 AB08 BA17 CA01 CA02 CA16
4D038 AA02 AB66 BB06 BB07 BB17

(54)【発明の名称】　井戸水処理方法とその装置

(57)【要約】
【課題】井戸水中の微生物等雑菌を殺菌するとともに、それらの栄養源となる水生植物等の有機物を除去し、電子部品等の洗浄水として使用できる処理水にする井戸水処理方法と装置を本発明の課題とする。
【解決手段】　本発明は、地下水を汲み上げて原水槽２に貯留し、その水を塩素殺菌槽３へ送り、そこで塩素殺菌処理し、殺菌処理された水をセラミック塔４へ送り、そのセラミック塔４内には遠赤外線放射体のセラミック粒子をネットの上に装填しており、殺菌処理された水はセラミック粒子間を通過する時、遠赤外線処理により不純物が分離され、水のクラスターを小さくし、その水は急速除鉄槽５へ送られ、その急速除鉄槽５内には砂を充填しており、不純物が分離された水が砂間を通過するとき不純物を沪過し、鉄分を吸着し、そこで沪過、除鉄された処理水を活性炭処理水槽６へ送り、そこでは急速除鉄槽５で取り除けなかった不純物を活性炭により吸着し、そこから工場に給水させてなる井戸水処理方法である。



【特許請求の範囲】
【請求項1】汲み上げた地下水を塩素殺菌槽3へ送り、そこで塩素殺菌処理し、殺菌処理された水をセラミック塔4へ送り、そのセラミック塔4内には遠赤外線放射体のセラミック粒子をネットの上に装填しており、殺菌処理された水はセラミック粒子間を通過する時、遠赤外線処理により水の不純物が分離され、水のクラスターを小さくしてなる井戸水処理方法。
【請求項2】汲み上げた地下水をセラミック塔4へ送り、そのセラミック塔4内には遠赤外線放射体のセラミック粒子をネットの上に装填しており、そのセラミック粒子間を通過する時、水は遠赤外線処理により不純物が分離され、水のクラスターを小さくし、その水は急速除鉄槽5へ送られ、その急速除鉄槽5内には砂を充填しており、不純物が分離された水が砂間を通過するとき不純物を沪過し、鉄分を吸着するようにしてなる井戸水処理方法。
【請求項3】地下水を汲み上げて原水槽2に貯留し、その水を塩素殺菌槽3へ送り、そこで塩素殺菌処理し、殺菌処理された水をセラミック塔4へ送り、そのセラミック塔4内には遠赤外線放射体のセラミック粒子をネットの上に装填しており、殺菌処理された水はセラミック粒子間を通過する時、遠赤外線処理により不純物が分離され、水のクラスターを小さくし、その水は急速除鉄槽5へ送られ、その急速除鉄槽5内には砂を充填しており、不純物が分離された水が砂間を通過するとき不純物を沪過し、鉄分を吸着し、そこで沪過、除鉄された処理水を活性炭処理水槽6へ送り、そこでは急速除鉄槽5で取り除けなかった不純物を活性炭により吸着し、そこから工場に給水させてなる井戸水処理方法。
【請求項4】地下水を汲み上げて貯留する原水槽2と、そこから配管で接続され水を塩素殺菌処理する塩素殺菌槽3と、そこから配管で接続され、殺菌処理された水を遠赤外線処理するため遠赤外線放射体のセラミック粒子をネットの上に装填したセラミック塔4と、そこから配管で接続され、遠赤外線処理により不純物が分離された処理水を受け入れ、内部に砂を充填し、それによってそこを通過する水をろ過し、鉄分を吸着する急速除鉄槽5と、そこから配管で接続され、残留する不純物を吸着するため内部に活性炭を充填した活性炭処理水槽6とでなり、そこから工場に給水させてなる井戸水処理装置。
【発明の詳細な説明】
【0001】
【産業上の利用分野】本発明は、井戸水処理方法と装置に関し、特に、電子部品等の研磨等、表面処理水として使用する井戸水の処理方法と装置に関する。
【0002】
【従来の技術】従来から、電子部品工場における部品の研磨等、表面処理用の処理水は純水が望ましいとされているが純水は入手し難くく高価である。それ故に、入手し易い水として地下水の利用が考えられる。しかし、地下水には雑菌が含まれていて、そのために貯水槽に藻が発生し、そのままでは処理水として使用することができない。また、雑菌によりぬめりが生じるので、貯水槽や配管や関連する機械等を毎日のように掃除する必要があり、その手間と費用が製造コストを大きく跳ね上げている。
【0003】
【発明が解決しようとする課題】そこで、井戸水には微生物等雑菌や藻類が含まれ、これらは水中の栄養分を利用して増殖し、多糖類等の粘着物質を分泌し、水中の浮遊懸濁物質を固着化せ、これに空気中のほこりなどが混じりあって粘着性の泥状物質をつくる。これが水中に浮遊するので電子部品等の洗浄水として好ましくないばかりでなく、貯水槽や配管や関連する機械等に付着したり堆積したりするのでその掃除の手間と費用がかかることになる。従って、井戸水中の微生物等雑菌を殺菌するとともに、それらの栄養源となる水生植物等の有機物を除去し、電子部品等の洗浄水として使用できる処理水にすることを本発明の課題とする。具体的には、微生物等雑菌を含む地下水を塩素殺菌処理しその殺菌処理水を遠赤外線処理して不純物を分離した処理水にすることを本発明の第1の課題とする。地下水に鉄分が多く含まれる場合、地下水を遠赤外線処理して不純物を分離し、急速除鉄槽で除鉄ろ過した処理水にすることを本発明の第2の課題とする。また、微生物等雑菌を含む地下水を塩素殺菌処理してその殺菌処理水を遠赤外線処理して不純物を分離し、急速除鉄槽で除鉄ろ過し、さらに残留する不純物を吸着して電子部品等の洗浄水として使用できる処理水にすることを本発明の第3の課題とする。
【0004】
【課題を解決するための手段】本発明は、地下水を汲み上げて原水槽2に貯留し、その水を塩素殺菌槽3へ送り、そこで塩素殺菌処理し、殺菌処理された水をセラミック塔4へ送り、そのセラミック塔4内には遠赤外線放射体のセラミック粒子をネットの上に装填しており、殺菌処理された水はセラミック粒子間を通過する時、遠赤外線処理により不純物が分離され、水のクラスターを小さくし、その水は急速除鉄槽5へ送られ、その急速除鉄槽5内には砂を充填しており、不純物が分離された水が砂間を通過するとき不純物を沪過し、鉄分を吸着し、そこで沪過、除鉄された処理水を活性炭処理水槽6へ送り、そこでは急速除鉄槽5で取り除けなかった不純物を活性炭により吸着し、そこから工場に給水させてなる井戸水処理方法である。本発明は、地下水を汲み上げて貯留する原水槽2と、そこから配管で接続され水を塩素殺菌処理する塩素殺菌槽3と、そこから配管で接続され、殺菌処理された水を遠赤外線処理するため遠赤外線放射体のセラミック粒子をネットの上に装填したセラミック塔4と、そこから配管で接続され、遠赤外線処理により

不純物が分離された処理水を受け入れ、内部に砂を充填し、それによってそこを通過する水をろ過し、鉄分を吸着する急速除鉄槽5と、そこから配管で接続され、残留する不純物を吸着するため内部に活性炭を充填した活性炭処理水槽6とでなり、そこから工場に給水させてなる井戸水処理装置である。

【0005】

【作用】本発明は、地下水を汲み上げて（1）塩素殺菌槽3で塩素殺菌し、それをセラミック塔4で遠赤外線処理する方法と、（2）セラミック塔4で遠赤外線処理して急速除鉄槽5で急速除鉄ろ過する方法と、（3）塩素殺菌槽3で塩素殺菌し、それをセラミック塔4で遠赤外線処理し、急速除鉄槽5で急速除鉄ろ過し、活性炭処理水槽6で残留不純物をさらに吸着する方法の3通りが考えられる。上記（3）の場合から（1）または（2）への切り替えは配管と弁により行い不必要な槽をバイパスするようにする。従って、ここでは（3）の方法について説明する。まず井戸ポンプで地下水を汲み上げて原水槽2に溜め、その水を塩素殺菌槽3へ送り、そこで通常の水道水に用いる程度の塩素濃度を使って殺菌処理する。その殺菌処理された水はセラミック塔4へ送られ、セラミック粒子間をゆっくり通過する時セラミック塔4内の遠赤外線放射体のセラミック粒子から放射される遠赤外線の作用により不純物が分離され、水のクラスターが小さくなり、その不純物が分離された処理水を急速除鉄槽5へ送り、その急速除鉄槽5内の砂間を通過する時、分離された不純物をろ過し鉄分を吸着させ、さらに活性炭処理水槽6ではそれまでに取り除けなかった不純物を吸着し除去する。処理水はその活性炭処理水槽6から工場へ給水される。急速除鉄槽5と活性炭処理水槽6には逆洗装置を取り付けて吸着した不純物や鉄分等を定期的に逆洗し、目詰まりを起こさないようにする。原水槽2の原水水質と最後の活性炭処理水槽6から出た処理水水質とを比較した結果は次の通りであり、水質が改善されたことが分かる。

原水水質	
PH	7．4
Fe	2．0mg／l
Mn	0．1mg／l
硬度	53
SiO_2	29 mg／l
$KMnO_4$	1．5mg／l
蒸発残物	110 mg／l
電導率	60～80

処理水水質	
PH	6．0～8．0
Fe	〈0．3mg／l
Mn	〈0．1mg／l
硬度	10以下
電導率	10～20

かくして、藻の発生率は従来の約20分の1位まで下がったので貯水槽その他機械の掃除の回数も減り、それまで毎日行っていた掃除の回数は1か月に1回で済むようになった。

【0006】

【実施例1】請求項4に対応した装置を図1により説明する。地下水を汲み上げて貯留する原水槽2と、そこから配管で接続され、水を塩素殺菌処理する塩素殺菌槽3と、そこから配管で接続され、殺菌処理された水を遠赤外線処理するため遠赤外線放射体のセラミック粒子をネットの上に装填したセラミック塔4と、そこから配管で接続され、遠赤外線処理により不純物が分離され、水のクラスターが小さくなった処理水を受け入れ、内部に砂を充填し、それによってそこを通過する水の不純物をろ過し、鉄分を吸着する急速除鉄槽5と、そこから配管で接続され、除鉄ろ過された処理水を活性炭を通すことによりそれまでに取り除けなかった不純物を除去する活性炭処理水槽6と、その処理水槽6には配水口7と給水ユニットポンプ8を設け、そこから工場に給水させてなる井戸水処理装置であり、この装置を使った井戸水処理方法である。塩素殺菌槽3の塩素殺菌は通常の水道水に使用される塩素濃度を使用する。セラミック塔4には遠赤外線放射体の4～14μ径のセラミック粒子殻又は3～15mmのセラミック粒子石を詰め込み、下にネットを敷く。水に鉄分が多い場合には急速除鉄槽5を通して除鉄するが、この急速除鉄槽5は必ずしも使用しなくてもよい。また、塩素殺菌槽3とセラミック塔4のみの組み合わせや、セラミック塔4と急速除鉄槽5のみの組み合わせも可能である。

【0007】

【効果】本発明は、上述のように塩素殺菌槽3とセラミック塔4、セラミック塔4と急速除鉄槽5、そして塩素殺菌槽3とセラミック塔4と急速除鉄槽5と活性炭処理水槽6といった具合に被処理水の水質に応じて不要の槽をバイパスしていずれの組み合わせにすることもできる。雑菌を塩素殺菌槽3で殺菌し、セラミック塔4で有機物などの不純物を分離し急速除鉄槽5と活性炭処理水槽6で不純物のろ過除去、除鉄をするので藻やぬめりの発生を抑制し、従来のように貯水槽や配管や関連する機械等を毎日のように掃除する必要なしに電子部品等の洗浄水として使用できる処理水にすることができ、製造コストを安くする効果がある。さらに本装置を通して井戸水中の微生物等雑菌を殺菌し、有機物などの不純物をろ過吸着除去するので処理水の電導率を60～80から10～20に低下させることができる。本発明の装置で処理することにより硬水を軟水にすることができる。

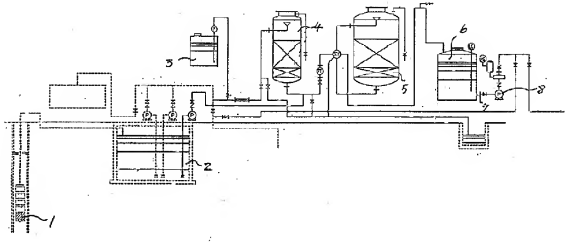
【図面の簡単な説明】

【図１】本発明の井戸水処理装置の概略図である。

【符号の説明】

1	井戸ポンプ	2	原水槽	塔			
3	塩素殺菌槽	4	セラミック	トポンプ	5	急速除鉄槽	6	処理水槽
					7	配水口	8	給水ユニッ

【図１】



フロントページの続き

(51)Int.Cl.⁷		識別記号	FI		(参考)
C02F	1/50	550	C02F	1/50	550H
		560			560B
					560C
					560Z
	1/28			1/28	D
	1/30			1/30	
	1/64			1/64	A